

1644

RECEIVED

JAN 08 2001

TECH CENTER 1600/1600

RAW SEQUENCE LISTING

DATE: 12/22/2000

PATENT APPLICATION: US/09/214,881A

TIME: 10:52:08

Input Set : A:\068383.0104.app

Output Set: N:\CRF3\12222000\I214881A.raw

3 <110> APPLICANT: Ozaki, Shoichi
 4 Sobajima, Junko
 5 Uesugi, Hiroko
 6 Okazaki, Takahiro
 7 Tanaka, Masao
 8 Nakao, Kazuwa
 9 Yoshida, Michiteru
 10 Shirakawa, Hitoshi
 11 Osakada, Fumio
 13 <120> TITLE OF INVENTION: DIAGNOSTIC DRUGS FOR AUTOIMMUNE DISEASES
 15 <130> FILE REFERENCE: 068383.0104
 17 <140> CURRENT APPLICATION NUMBER: 09/214,881A
 C--> 18 <141> CURRENT FILING DATE: 1999-06-07
 20 <160> NUMBER OF SEQ ID NOS: 13
 22 <170> SOFTWARE: PatentIn Ver. 2.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 214
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Homo sapiens
 29 <400> SEQUENCE: 1
 30 Gly Lys Gly Asp Pro Lys Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
 31 1 5 10 15
 33 Phe Phe Val Gln Thr Cys Arg Glu Glu His Lys Lys Lys His Pro Asp
 34 20 25 30
 36 Ala Ser Val Asn Phe Ser Glu Phe Ser Lys Lys Cys Ser Glu Arg Trp
 37 35 40 45
 39 Lys Thr Met Ser Ala Lys Glu Lys Gly Lys Phe Glu Asp Met Ala Lys
 40 50 55 60
 42 Ala Asp Lys Ala Arg Tyr Glu Arg Glu Met Lys Thr Tyr Ile Pro Pro
 43 65 70 75 80
 45 Lys Gly Glu Thr Lys Lys Lys Phe Lys Asp Pro Asn Ala Pro Lys Arg
 46 85 90 95
 48 Pro Pro Ser Ala Phe Phe Leu Phe Cys Ser Glu Tyr Arg Pro Lys Ile
 49 100 105 110
 51 Lys Gly Glu His Pro Gly Leu Ser Ile Gly Asp Val Ala Lys Lys Leu
 52 115 120 125
 54 Gly Glu Met Trp Asn Asn Thr Ala Ala Asp Asp Lys Gln Pro Tyr Glu
 55 130 135 140
 57 Lys Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala
 58 145 150 155 160
 60 Tyr Arg Ala Lys Gly Lys Pro Asp Ala Ala Lys Lys Gly Val Val Lys
 61 165 170 175
 63 Ala Glu Lys Ser Lys Lys Lys Glu Glu Glu Glu Asp Glu Glu Asp
 64 180 185 190
 66 Glu Glu Asp Glu Glu Glu Glu Glu Asp Glu Glu Asp Glu Asp Glu Glu
 67 195 200 205
 69 Glu Asp Asp Asp Asp Glu

ENTERED

RAW SEQUENCE LISTING DATE: 12/22/2000
 PATENT APPLICATION: US/09/214,881A TIME: 10:52:08

Input Set : A:\068383.0104.app
 Output Set: N:\CRF3\12222000\I214881A.raw

RECEIVED

JAN 08 2001

TECH CENTER 10000107

```

70      210
73 <210> SEQ ID NO: 2
74 <211> LENGTH: 208
75 <212> TYPE: PRT
76 <213> ORGANISM: Homo sapiens
78 <400> SEQUENCE: 2
79 Gly Lys Gly Asp Pro Asn Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
80   1           5           10           15
82 Phe Phe Val Gln Thr Cys Arg Glu Glu His Lys Lys Lys His Pro Asp
83           20           25           30
85 Ser Ser Val Asn Phe Ala Glu Phe Ser Lys Lys Cys Ser Glu Arg Trp
86           35           40           45
88 Lys Thr Met Ser Ala Lys Glu Lys Ser Lys Phe Glu Asp Met Ala Lys
89           50           55           60
91 Ser Asp Lys Ala Arg Tyr Asp Arg Glu Met Lys Asn Tyr Val Pro Pro
92  65           70           75           80
94 Lys Gly Asp Lys Lys Gly Lys Lys Lys Asp Pro Asn Ala Pro Lys Arg
95           85           90           95
97 Pro Pro Ser Ala Phe Phe Leu Phe Cys Ser Glu His Arg Pro Lys Ile
98           100          105          110
100 Lys Ser Glu His Pro Gly Leu Ser Ile Gly Asp Thr Ala Lys Lys Leu
101           115          120          125
103 Gly Glu Met Trp Ser Glu Gln Ser Ala Lys Asp Lys Gln Pro Tyr Glu
104           130          135          140
106 Gln Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala
107 145          150          155          160
109 Tyr Arg Ala Lys Gly Lys Ser Glu Ala Gly Lys Lys Gly Pro Gly Arg
110           165          170          175
112 Pro Thr Gly Ser Lys Lys Lys Asn Glu Pro Glu Asp Glu Glu Glu
113           180          185          190
115 Glu Glu Glu Glu Asp Glu Asp Glu Glu Glu Glu Asp Glu Asp Glu Glu
116           195          200          205
122 <210> SEQ ID NO: 3
123 <211> LENGTH: 214
124 <212> TYPE: PRT
125 <213> ORGANISM: Bos taurus
127 <400> SEQUENCE: 3
128 Gly Lys Gly Asp Pro Lys Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
129   1           5           10           15
131 Phe Phe Val Gln Thr Cys Arg Glu Glu His Lys Lys Lys His Pro Asp
132           20           25           30
134 Ala Ser Val Asn Phe Ser Glu Phe Ser Lys Lys Cys Ser Glu Arg Trp
135           35           40           45
137 Lys Thr Met Ser Ala Lys Glu Lys Gly Lys Phe Glu Asp Met Ala Lys
138           50           55           60
140 Ala Asp Lys Ala Arg Tyr Glu Arg Glu Met Lys Thr Tyr Ile Pro Pro
141  65           70           75           80
143 Lys Gly Glu Thr Lys Lys Lys Phe Lys Asp Pro Asn Ala Pro Lys Arg
144           85           90           95

```

RAW SEQUENCE LISTING DATE: 12/22/2000
 PATENT APPLICATION: US/09/214,881A TIME: 10:52:08

Input Set : A:\068383.0104.app
 Output Set: N:\CRF3\12222000\I214881A.raw

```

146 Pro Pro Ser Ala Phe Phe Leu Phe Cys Ser Glu Tyr Arg Pro Lys Ile
147           100           105           110
149 Lys Gly Glu His Pro Gly Leu Ser Ile Gly Asp Val Ala Lys Lys Leu
150           115           120           125
152 Gly Glu Met Trp Asn Asn Thr Ala Ala Asp Asp Lys Gln Pro Tyr Glu
153           130           135           140
155 Lys Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala
156 145           150           155           160
158 Tyr Arg Ala Lys Gly Lys Pro Asp Ala Ala Lys Lys Gly Val Val Lys
159           165           170           175
161 Ala Glu Lys Ser Lys Lys Lys Lys Glu Glu Glu Asp Glu Glu Asp
162           180           185           190
164 Glu Glu Asp Glu Glu Glu Glu Glu Asp Glu Glu Asp Glu Glu Glu Glu
165           195           200           205
167 Glu Asp Asp Asp Asp Glu
168           210
171 <210> SEQ ID NO: 4
172 <211> LENGTH: 214
173 <212> TYPE: PRT
174 <213> ORGANISM: Sus scrofa
176 <400> SEQUENCE: 4
177 Gly Lys Gly Asp Pro Lys Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
178 1           5           10           15
180 Phe Phe Val Gln Thr Cys Arg Glu Glu His Lys Lys Lys His Pro Asp
181           20           25           30
183 Ala Ser Val Asn Phe Ser Glu Phe Ser Lys Lys Cys Ser Glu Arg Trp
184           35           40           45
186 Lys Thr Met Ser Ala Lys Glu Lys Gly Lys Phe Glu Asp Met Ala Lys
187           50           55           60
189 Ala Asp Lys Ala Arg Tyr Glu Arg Glu Met Lys Thr Tyr Ile Pro Pro
190 65           70           75           80
192 Lys Gly Glu Thr Lys Lys Lys Phe Lys Asp Pro Asn Ala Pro Lys Arg
193           85           90           95
195 Pro Pro Ser Ala Phe Phe Leu Phe Cys Ser Glu Tyr Arg Pro Lys Ile
196           100           105           110
198 Lys Gly Glu His Pro Gly Leu Ser Ile Gly Asp Val Ala Lys Lys Leu
199           115           120           125
201 Gly Glu Met Trp Asn Asn Thr Ala Ala Asp Asp Lys His Pro Tyr Glu
202           130           135           140
204 Lys Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala
205 145           150           155           160
207 Tyr Arg Ala Lys Gly Lys Pro Asp Ala Ala Lys Lys Gly Val Val Lys
208           165           170           175
210 Ala Glu Lys Ser Lys Lys Lys Lys Glu Glu Glu Glu Asp Glu Glu Asp
211           180           185           190
213 Glu Glu Asp Glu Glu Glu Glu Glu Asp Glu Glu Asp Glu Glu Glu Glu
214           195           200           205
216 Glu Asp Asp Asp Asp Glu
217           210

```

RAW SEQUENCE LISTING DATE: 12/22/2000
 PATENT APPLICATION: US/09/214,881A TIME: 10:52:08

Input Set : A:\068383.0104.app
 Output Set: N:\CRF3\12222000\I214881A.raw

```

220 <210> SEQ ID NO: 5
221 <211> LENGTH: 214
222 <212> TYPE: PRT
223 <213> ORGANISM: Rattus rattus
225 <400> SEQUENCE: 5
226 Gly Lys Gly Asp Pro Lys Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
227   1           5           10           15
229 Phe Phe Val Gln Thr Cys Arg Glu Glu His Lys Lys Lys His Pro Asp
230           20           25           30
232 Ala Ser Val Asn Phe Ser Glu Phe Ser Lys Lys Cys Ser Glu Arg Trp
233           35           40           45
235 Lys Thr Met Ser Ala Lys Glu Lys Gly Lys Phe Glu Asp Met Ala Lys
236           50           55           60
238 Ala Asp Lys Ala Arg Tyr Glu Arg Glu Met Lys Thr Tyr Ile Pro Pro
239   65           70           75           80
241 Lys Gly Glu Thr Lys Lys Lys Phe Lys Asp Pro Asn Ala Pro Lys Arg
242           85           90           95
244 Pro Pro Ser Ala Phe Phe Leu Phe Cys Ser Glu Tyr Arg Pro Lys Ile
245           100          105          110
247 Lys Gly Glu His Pro Gly Leu Ser Ile Gly Asp Val Ala Lys Lys Leu
248           115          120          125
250 Gly Glu Met Trp Asn Asn Thr Ala Ala Asp Asp Lys His Pro Tyr Glu
251           130          135          140
253 Lys Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala
254   145          150          155          160
256 Tyr Arg Ala Lys Gly Lys Pro Asp Ala Ala Lys Lys Gly Val Val Lys
257           165          170          175
259 Ala Glu Lys Ser Lys Lys Lys Lys Glu Glu Glu Asp Asp Glu Glu Asp
260           180          185          190
262 Glu Glu Asp Glu Glu Glu Glu Glu Glu Glu Asp Glu Glu Glu Glu
263           195          200          205
265 Glu Asp Asp Asp Asp Glu
266           210
269 <210> SEQ ID NO: 6
270 <211> LENGTH: 209
271 <212> TYPE: PRT
272 <213> ORGANISM: Sus scrofa
274 <400> SEQUENCE: 6
275 Gly Lys Gly Asp Pro Asn Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
276   1           5           10           15
278 Phe Phe Val Gln Thr Cys Arg Glu Glu His Lys Lys Lys His Pro Asp
279           20           25           30
281 Ser Ser Val Asn Phe Ala Glu Phe Ser Lys Lys Cys Ser Glu Arg Trp
282           35           40           45
284 Lys Thr Met Ser Ala Lys Glu Lys Ser Lys Phe Glu Asp Met Ala Lys
285           50           55           60
287 Ser Asp Lys Ala Arg Tyr Asp Arg Glu Met Lys Asn Tyr Val Pro Pro
288   65           70           75           80
290 Lys Gly Asp Lys Lys Gly Lys Lys Lys Asp Pro Asn Ala Pro Lys Arg

```

RAW SEQUENCE LISTING DATE: 12/22/2000
 PATENT APPLICATION: US/09/214,881A TIME: 10:52:08

Input Set : A:\068383.0104.app
 Output Set: N:\CRF3\12222000\I214881A.raw

```

291          85          90          95
293 Pro Pro Ser Ala Phe Phe Leu Phe Cys Ser Glu His Arg Pro Lys Ile
294          100          105          110
296 Lys Ser Glu His Pro Gly Leu Ser Ile Gly Asp Thr Ala Lys Lys Leu
297          115          120          125
299 Gly Glu Met Trp Ser Glu Gln Ser Ala Lys Asp Lys Gln Pro Tyr Glu
300          130          135          140
302 Gln Lys Ala Ala Lys Leu Lys Glu Lys Tyr Glu Lys Asp Ile Ala Ala
303 145          150          155          160
305 Tyr Arg Ala Lys Gly Lys Gly Glu Ala Gly Lys Lys Gly Pro Gly Arg
306          165          170          175
308 Pro Thr Gly Ser Lys Lys Lys Asn Glu Pro Glu Asp Glu Glu Glu Glu
309          180          185          190
311 Glu Glu Glu Glu Glu Asp Glu Asp Glu Glu Glu Glu Asp Glu Asp Glu
312          195          200          205
314 Glu
318 <210> SEQ ID NO: 7
319 <211> LENGTH: 185
320 <212> TYPE: PRT
321 <213> ORGANISM: Bos taurus
323 <220> FEATURE:
324 <221> NAME/KEY: MOD_RES
325 <222> LOCATION: (39)
326 <223> OTHER INFORMATION: Xaa = Glu or Arg
328 <220> FEATURE:
329 <221> NAME/KEY: MOD_RES
330 <222> LOCATION: (149)
331 <223> OTHER INFORMATION: Xaa = Any Amino Acid
333 <400> SEQUENCE: 7
334 Gly Lys Gly Asp Pro Asn Lys Pro Arg Gly Lys Met Ser Ser Tyr Ala
335 1 5 10 15
337 Phe Phe Val Gln Thr Ser Arg Glu Glu His Lys Lys Lys His Pro Asp
338 20 25 30
OK 340 Ala Ser Val Asn Phe Ser Xaa Trp Lys Thr Met Ser Ala Lys Glu Lys
341 35 40 45
343 Ser Lys Phe Glu Asp Met Ala Lys Ser Asp Lys Ala Arg Tyr Asp Arg
344 50 55 60
346 Glu Met Lys Asn Tyr Val Pro Pro Lys Gly Asp Lys Lys Gly Lys Lys
347 65 70 75 80
349 Lys Asp Pro Asn Ala Pro Lys Arg Pro Pro Ser Ala Phe Phe Leu Phe
350 85 90 95
352 Ser Ala Glu His Arg Pro Lys Ile Lys Ala Glu His Pro Gly Leu Ser
353 100 105 110
355 Ile Gly Asp Thr Ala Lys Lys Leu Gly Glu Met Trp Ser Gln Gln Ser
356 115 120 125
358 Ala Lys Asp Lys Gln Pro Tyr Glu Glu Lys Ala Ser Lys Leu Lys Glu
359 130 135 140
OK-> 361 Lys Tyr Glu Lys Xaa Ala Ala Tyr Arg Ala Lys Gly Lys Ser Glu Ala
362 145 150 155 160

```

FYI:

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/214,881A

DATE: 12/22/2000

TIME: 10:52:09

Input Set : A:\068383.0104.app

Output Set: N:\CRF3\12222000\I214881A.raw

L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12

L:596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13